

Mira Mesa

8.1.3



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12.7 Mesa Norte (B 11)

Site Description and Existing Conditions

Mesa Norte (B 11) is a five-acre site located in northwestern Mira Mesa on Prairie Wood Drive. Following an unsuccessful development proposal (Helix, 1997), Mesa Norte was conserved as partial mitigation for Mira Mesa Market Center project in 1997 (see USFWS BO 1-6-98-F-23). The preserved area is bounded by a paved roadway, an elementary school, and residential development. Mesa Norte is owned by a private entity and managed by Helix Environmental, Inc. This site is preserved via conservation easement, is zoned Open Space, and is not within or adjacent to the MHPA.

The predominant soil type is Redding gravelly loam and the site supports sparse chamise chaparral. Sensitive species observed on-site include *E. aristulatum*, *P. abramsii* and *B. sandiegonensis*. Approximately 27 of the 45 vernal pools were restored as part of the mitigation plan, which also included fencing, trash and weed removal, restoration of existing basins, upland re-vegetation, and a five year monitoring plan. Pursuant to the mitigation requirements, 0.31 acres of vernal pool basins were restored and 0.27 acres were created for a total of 0.58 acres on-site.

Prior to preservation, the Mima mounds and vernal pool basins were used by neighborhood children as BMX jumps, and by the mid-1990s, many of the pools were severely degraded (Helix, 1996). Management issues at Mesa Norte such as dumping, foot and vehicle traffic, and vegetation removal (Bauder, 1986; Helix, 1997) were addressed by fencing, monitoring, and weed removal mandated in the restoration plan.

Threats

Development

Mesa Norte is conserved.

Invasive Species

Mesa Norte was actively weeded throughout the 5-year restoration program. Some non-native species occur at the site, including *Eucalyptus* spp. along the border by the school.

Edge Effects

The Mesa Norte vernal pool preserve may be negatively affected by edge effects. Domestic cats were seen entering the preserve through dilapidated backyard fencing. Mesa Norte is located over one mile from the nearest vernal pool series which may make it vulnerable to genetic isolation. Yard clippings have been dumped into the preserve and non-biodegradable litter such as children's balls from the adjacent schoolyard were also noted. These impacts primarily affect the vernal pool watershed area, although trash may collect in vernal pool basins following storm events.

Trespass

Fencing and signage were installed as part of the restoration program. Fences also separate the school and residential developments from the preserve; however, many backyard fences adjacent to the preserve are in disrepair and contribute to increased trespass.

Current Management Activities

Mesa Norte was preserved as partial mitigation for the Cousins/Mira Mesa MarketCenter project. The U.S. Fish and Wildlife Service issued Biological Opinion 1-6-98-F-23 regarding the project, which required the preservation of 23 existing vernal pools and restoration of a minimum of 817.5 m² (8,800 ft²) of vernal pool habitat. The *Mesa Norte Vernal Pool Mitigation Plan* (Helix, 1998), approved by the permitting agencies, details required management at this site.

The *Plan* requires the creation of 10,151 square feet of vernal pool basin area at the Mesa Norte (Helix, 1998). The *Plan* also describes protective fencing and five years of active management and monitoring by the site manager. The site was fenced in 1998 and 25,298 square feet of vernal pool basin area, including preserved pools, was mapped in 2003. Annual monitoring of the site was conducted by Helix Environmental, Inc., from 1998 through 2003.

Funding for the requirements set forth in the *Plan* is provided by Cousins Market Centers, Inc.

Management Recommendations

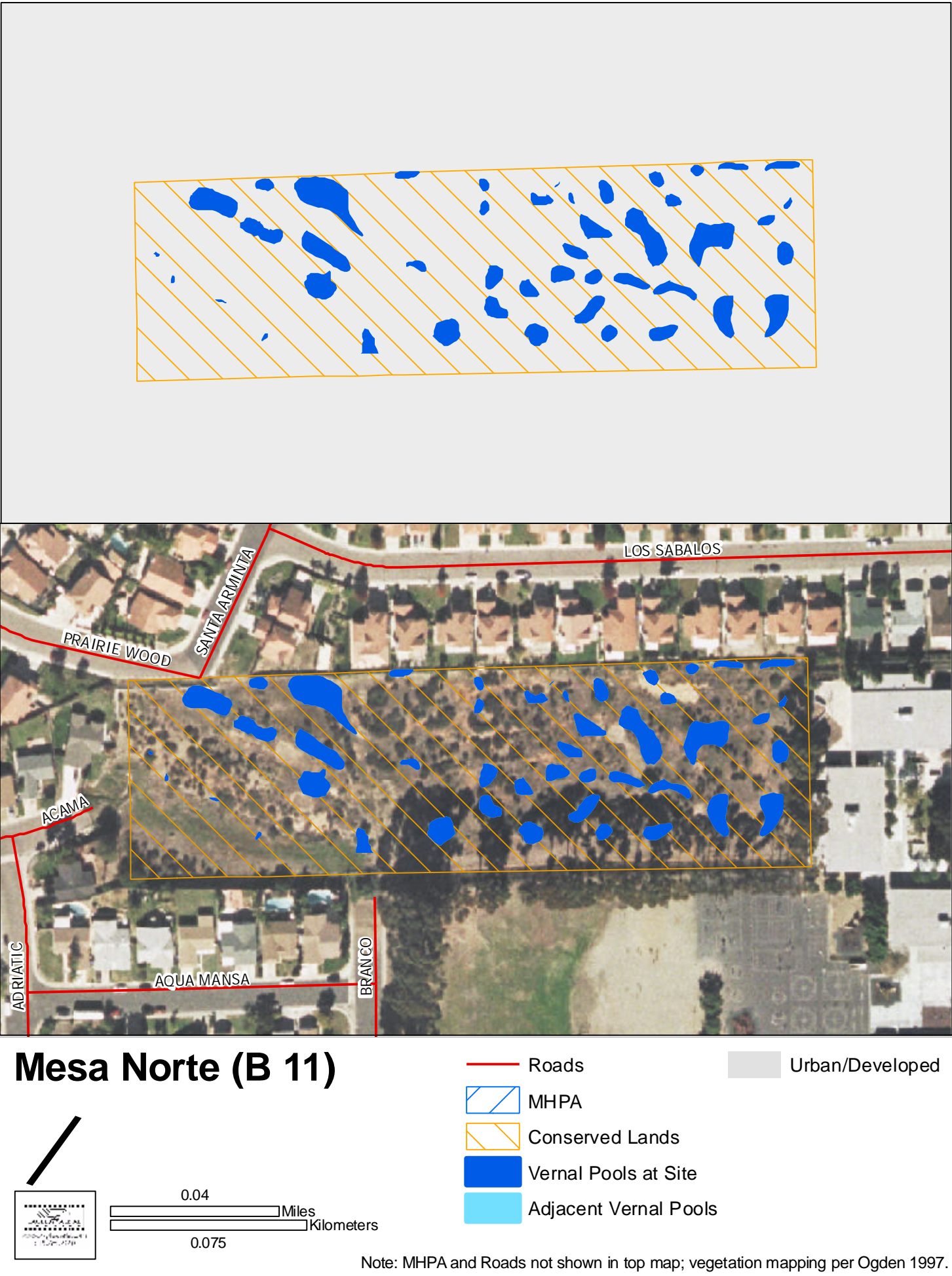
This site was identified as necessary to stabilize the populations of *E. aristulatum*, *P. abramsii*, and *B. sandiegonensis*, by the adopted *Recovery Plan of Vernal Pools in Southern California* (USFWS, 1998). All future management activities should promote the stabilization and recovery of these species.

The site manager should contact the appropriate home-owners to request repair of fencing as necessary to minimize litter and access by humans and domestic animals.

Exotic and/or weedy plant species have been successfully controlled by the current weed removal program. However, this program is part of the five year restoration effort and was scheduled to end in 2003. Thereafter, the site should be visited annually to detect the presence of non-native invasive species in upland areas and vernal pool basins. If such species are deemed a problem due to high numbers, crowding of native species, and/or invasion of vernal pool basins, active weed management should be reinstated.

Pursue enforcement of code violations by property-owners adjacent to the Preserve.

Figure 9



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8.1.3.b *Tierra Alta (B 5-6)*

Site Description and Existing Conditions

Tierra Alta (B 5-6) is located north of Calle Cristobal near its intersection with Camino Santa Fe in the Los Penasquitos area, and is adjacent to an existing residential development. The Tierra Alta development was approved in 2001 but has not yet been constructed. This conserved 0.1-acre site is privately-owned and will be maintained by the Tierra Alta Home Owner's Association. This area is zoned Residential, and surrounding land uses include Los Penasquitos Canyon Open Space Preserve, Lopez Ridge and Crescent Heights vernal pool sites, and residential neighborhoods.

A single vernal pool (22.39 m² [241 ft²] of basin area) was mapped at Tierra Alta, and no sensitive vernal pool species have been recorded. The chamise chaparral and non-native grasses at the site grow in Redding gravelly loam soils.

Although considered separately here due to ownership and conservation status, the Tierra Alta, Crescent Heights and Lopez Ridge vernal pools are geographically related and are part of the same complex and series.

Threats

Development

This site was conserved as a condition of development of Tierra Alta (LDR 98-0792).

Invasive Species

Vegetation is generally native, with some non-native grasses.

Edge Effects

The site is approximately 50 feet from a nearby residential development, and will be further isolated upon the development of Tierra Alta. Although the site is fenced, there is the minimal potential for the site to be impacted by litter, night-lighting and ornamental vegetation from nearby homes.

Trespass

The site is separated from nearby housing by two fences, a locked gate along the common area fence and a six-foot chain link fence around the vernal pool and its watershed. Impacts from trespass are expected to be limited, with the possible exception of vandalism.

Fire/Fire Suppression

The Tierra Alta vernal pool could be impacted in the case of fire in Los Penasquitos Canyon, but the possibility of impacts from suppression activities is limited.

Current Management Activities

The vernal pool was fenced as a requirement of the Mitigation, Monitoring, and Reporting Program (MMRP) for LDR 98-0792.

Management Recommendations

Restoration and/or enhancement of the vernal pool may be appropriate given the higher species diversity of nearby vernal pool sites.

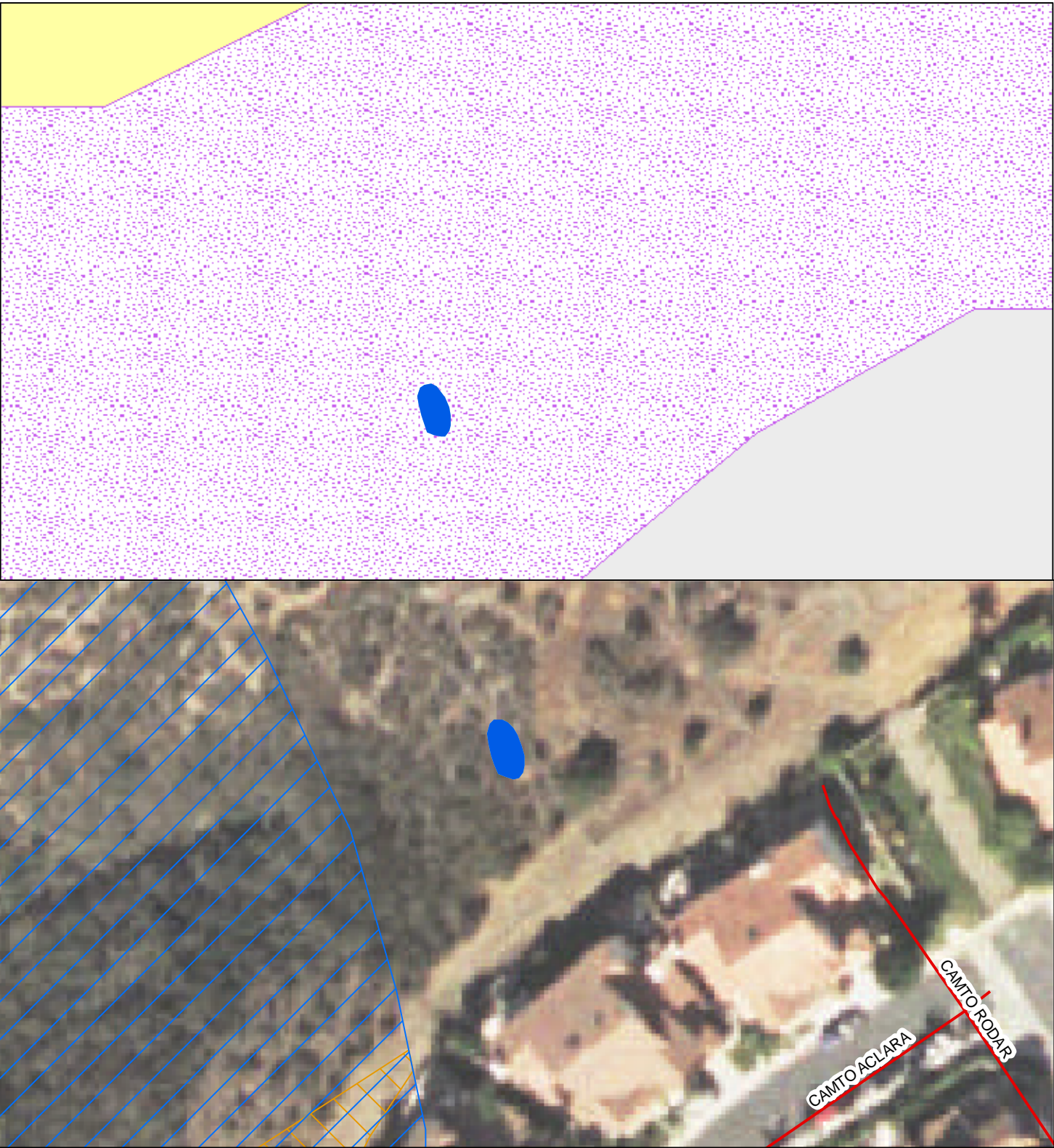
Weeding within and immediately adjacent to vernal pools should be done by hand. In upland areas, mechanical removal may be necessary; however, herbicides should not be used in or adjacent to vernal pools.

Annual maintenance should be conducted to provide fence and sign repair and trash removal, as necessary. The preserved area should be rezoned to Open Space.

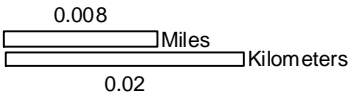
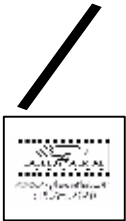
Given the proximity of the site to residential neighborhoods, it is recommended that educational programs be provided through local schools, Home-Owner's Associations (HOAs), community groups, etc. These sessions should stress the sensitivity of the resources and discuss the importance of minimizing litter, trespass and other impacts at the site. Informed neighborhood groups may also conduct maintenance activities under the supervision of a qualified biologist. All programs should strive to present information in a manner that will increase interest in the natural world and cultivate a sense of ownership of local open space, with the overall goal of developing positive neighborhood awareness of the preserve.

Land managers should encourage research opportunities, especially relating to the long-term success of preserves in close proximity to development.

Figure 10



Tierra Alta (B 5-6)



- | | |
|-----------------------|--------------------|
| Roads | Coastal Sage Scrub |
| MHPA | Chaparral |
| Conserved Lands | Urban/Developed |
| Vernal Pools at Site | |
| Adjacent Vernal Pools | |

Note: MHPA and Roads not shown in top map; vegetation mapping per Ogden 1997.

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8.1.3.c *Lopez Ridge (B 5-8)*

Site Description and Existing Conditions

The Lopez Ridge (B 5-8) site is a 5.6-acre mitigation site preserved as a condition of U.S. Fish and Wildlife Service Biological Opinion 1-1-83-F-29R. This Section 7 consultation regarded the transfer of the SANDER parcel from the Navy to the City of San Diego. An additional vernal pool on a nearby 6.8-acre parcel is also included in the Lopez Ridge site. This area is located north of Calle Cristobal and south of Los Penasquitos Canyon Preserve. The Lopez Ridge vernal pools are within the MHPA and are zoned Open Space; surrounding land uses include residential and transportation development and open space.

Thirteen vernal pools were mapped at Lopez Ridge. The basins cover a total of 1,939 m² (0.479 acres) and occur in Redding gravelly loam. Coastal sage scrub is the primary upland vegetation community. *E. aristulatum*, *P. abramsii* and *B. sandiegonensis* were observed in 2003.

Impacts to 20 vernal pools (two containing *P. abramsii*) at the SANDER site were permitted by Biological Opinion 1-1-83-F-29R. Although the mitigation requirements of the permit were fulfilled (i.e. preservation of Lopez Ridge), the proposed off-site project was never constructed and therefore no impacts occurred. Calle Cristobal (LDR 86-0449) was aligned to avoid impacts to these vernal pools. The Lopez Ridge pools were illegally impacted during construction activities for the Tierra Mesa project (LDR 86-0514), necessitating restoration activities and reinstallation of fencing (see *Emergency Fill Removal Plan for the Brown Parcel* [RECON, 1992]). Indirect impacts from the construction of Calle Cristobal were mitigated according to the *Vernal Pool Rehabilitation Plan for the Alignment of Calle Crsitobal Through the BaB Pool Series on Lopez Ridge* (RECON, 1988). In addition, the site burned on September 28, 1992.

Threats

Development

Lopez Ridge is conserved and may not be developed.

Invasive Species

Vegetation at Lopez Ridge is generally native and minimal impacts from invasive species were observed.

Edge Effects

Lopez Ridge is bordered by both developed and open space areas. Impacts from nearby development include litter from car and foot traffic along Calle Cristobal and residential neighborhoods (i.e. deflated balloons and sports balls), as well as trespass by humans and domestic animals. Fencing and signage have been installed pursuant to the mitigation plans.

Trespass

Impacts from off-road and construction vehicles occurred prior to development of the surrounding area. Fencing and signage were installed in an effort to minimize trespass.

However, the potential remains for trespass from the residents of nearby residential developments, particularly children.

Required Management Activities

Three approved documents apply to the management requirements of Lopez Ridge.

- 1) U.S. Fish and Wildlife Service Biological Opinion 1-1-83-F-29R
 - Acquisition of Lopez Ridge
 - Creation of 0.4 acres of vernal pool basin area
 - Restoration of Lopez Ridge vernal pools, including litter removal, reshaping of vernal pool basins impacted by mechanized vehicles, and uplands restoration where necessary
 - Installation of a permanent 6-foot fence along the eastern, southern and western boundaries
 - Installation of appropriate signage
 - Maintenance and monitoring of the site at regular intervals
 - Designation of a \$50,000 endowment fund for management activities
- 2) *Emergency Fill Removal Plan for the Brown Parcel* (RECON No. 2472B)
 - Removal of illegally dumped soils from vernal pool basins using mechanized equipment for all fill not within one inch of the natural basin; remaining fill to be removed by hand by a qualified vernal pool biologist
- 3) *Vernal Pool Rehabilitation Plan for the Alignment of Calle Cristobal through the Bab Pool Series on Lopez Ridge* (RECON No. R-1646B)
 - Soil de-compaction and re-vegetation of vernal pool basins impacted by illegal trespass

Management Recommendations

Active habitat restoration shall continue, as necessary, until the success criteria are met.

This site was identified as necessary to stabilize the populations of *E. aristulatum*, *P. abramsii*, and *B. sandiegonensis*, by the adopted *Recovery Plan of Vernal Pools in Southern California* (USFWS, 1998). All future management activities should promote the stabilization and recovery of these species.

Restoration and reintroduction efforts shall utilize seeds from within the smallest possible geographic range, in the following order, as necessary: complex, series, geographic region (i.e. Otay Mesa).

Weeding within and immediately adjacent to vernal pools should be done by hand. In upland areas, mechanical removal may be necessary; however, herbicides should not be used in or adjacent to vernal pools.

Semi-annual maintenance patrols should occur to replace fencing and signage, as necessary, as well as assess and remove litter and invasive species.

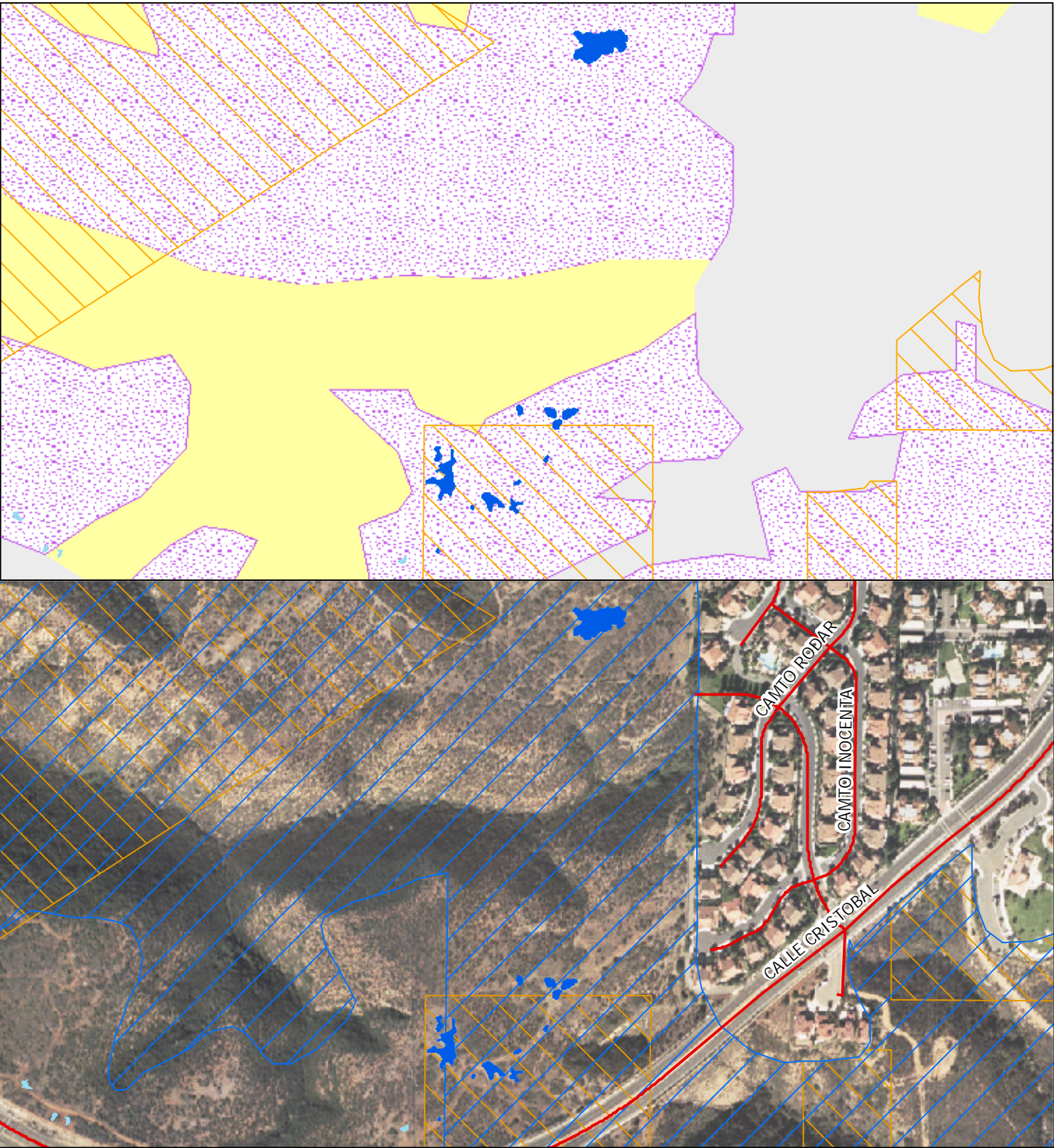
The site is owned by the City of San Diego and should be dedicated as open space by the Park and Recreation Department.

Given the proximity of residential neighborhoods, it is recommended that educational programs be provided through local schools, Home-Owner's Associations (HOAs), community groups, etc. These sessions should stress the sensitivity of the

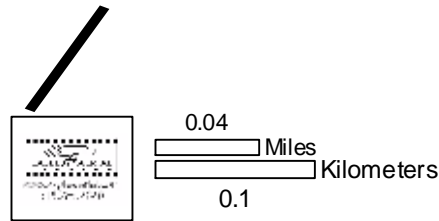
resources and discuss the importance of minimizing litter, trespass and other impacts at the site. Informed neighborhood groups may also conduct maintenance activities under the supervision of a qualified biologist. All programs should strive to present information in a manner that will increase interest in the natural world and cultivate a sense of ownership of local open space, with the overall goal of developing positive neighborhood awareness of the preserve.

Land managers should encourage research at this site, especially relating to the long-term success of restored and created vernal pools and edge effects.

Figure 11



Lopez Ridge (B 5-8)



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|-----------------------|--------------------|
| Roads | Coastal Sage Scrub |
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